

Whose ecosystem is it anyway? Private and public rights under new approaches to biodiversity conservation

Colin T Reid*

Professor of Environmental Law, University of Dundee, UK

Walters Nsoh

Lecturer in Law, Anglia Ruskin University, UK

A range of legal tools is increasingly being used for the conservation of biodiversity. These tools include conservation covenants, biodiversity offsets and payment for ecosystem services. There are benefits to these approaches, but also challenges to be met if these mechanisms are to be applied successfully.

Among the challenges is the fact that these schemes generate new relationships between land, people and the environment, especially wildlife. This requires consideration of the basic position of ownership of wild flora and fauna, the extent of the property rights of landowners and others with interests in the land, and of how far the state is justified in restricting, and even taking over, these rights for conservation purposes. The restriction of property rights for environmental purposes has already given rise to litigation under the European Convention on Human Rights, and as ideas of long-term stewardship in land or new rights in relation to ecosystem services develop, there are questions over the nature and extent of the rights being recognized. Moreover, there are concerns over the acceptability of an approach that converts nature from a 'common heritage' to a bundle of property rights. Mechanisms that confer rights on nature add a further dimension to the discussion. Using examples from the United Kingdom and other jurisdictions, this article attempts to highlight the different ways in which rights can be viewed in the context of developments in conservation law and the need to appreciate the consequences from different perspectives.

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1 INTRODUCTION

There is an urgent need to intensify the world's efforts to conserve biodiversity. This need for action is made clear by the conclusion of international experts in

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Global Biodiversity Outlook 3,¹ prepared in 2010 under the auspices of the Convention on Biological Diversity,² which makes gloomy reading:

The target agreed by the world's Governments in 2002, 'to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level as a contribution to poverty alleviation and to the benefit of all life on Earth', has not been met. There are multiple indications of continuing decline in biodiversity ...³

Since then a new set of objectives has been agreed, again calling for reductions in the rate of habitat loss and extinctions and for states to ensure that concern for biodiversity is integrated into their strategies and planning processes.⁴ Achieving these goals will require enhancing the legal tools that can assist the conservation of biodiversity. This could be achieved by a strengthening of the established approaches, which rely significantly on 'command-and-control' regulation to prevent activities harmful to species and habitats,⁵ for example prohibiting the disturbance of protected species⁶ and requiring landowners to manage areas of important habitat with a view to ensuring that they are maintained in or restored to a healthy condition.⁷ There is, though, growing interest in a wider range of mechanisms that utilize private rights and market devices to support conservation, for example seeking 'no net loss' to biodiversity, not by preventing all development that might cause harm but by accepting biodiversity losses in one place in exchange for gains elsewhere.⁸ Such approaches, as a supplement or alternative to direct regulation, are a feature of the legal response to greenhouse gas emissions,⁹ and their expansion to biodiversity issues creates both

1. Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 3* (Montreal 2010).

2. Convention on Biological Diversity (adopted 5 June 1992, entered into force 29 December 1993) 1760 UNTS 79.

3. *Global Biodiversity Outlook 3* (n 1) 9.

4. The Aichi Biodiversity Targets for 2011–2020, within the Strategic Plan for Biodiversity 2011–2020 agreed at the conference of the parties under the Convention on Biological Diversity in 2010: COP 10 Decision X/2.

5. In the United Kingdom, the trend has been to move away from the voluntary approach that dominated the conservation regimes first introduced in the second half of the twentieth century towards one where the law does ultimately provide significant regulatory powers. Nevertheless, practice follows a partnership approach, seeking positive action based on incentives and management agreements, with the coercive powers kept as a very last resort; CT Reid, *Nature Conservation Law* (3rd edn, W Green, Edinburgh 2009) 39–42; CT Reid, 'Towards a Biodiversity Law: The Changing Nature of Wildlife Law in Scotland' (2012) 15 *Journal of International Wildlife Law & Policy* 202.

6. For example, in Scotland (with a few exceptions) it is an offence intentionally or recklessly to kill, capture or disturb any animal of the species designated as having protection under EU law; Conservation (Natural Habitats, etc.) Regulations 1994, SI 1994/2716, reg 39.

7. For example, in Scotland the power to make land management orders to require occupiers to manage a Site of Special Scientific Interest so as to conserve, restore or enhance its natural features; Nature Conservation (Scotland) Act 2004, ss 29–37. Sites of Special Scientific Interest are one of the main habitat designations in Great Britain, imposing restrictions on how the land can be used and managed, but with slightly different regimes in England and Wales and in Scotland; Reid, *Nature Conservation Law* (n 5) 214–36. A parallel system, known as Areas of Special Scientific Interest, operates in Northern Ireland.

8. This is the basis of a biodiversity offset, discussed in section 2 below.

9. SD Deatherage, *Carbon Trading Law and Practice* (Oxford University Press, New York 2012).

opportunities and risks.¹⁰ Whatever route is chosen, a number of challenges are created from a rights perspective.

There is, of course, no single 'rights perspective' and this paper's aim is to identify some of the varied rights issues that arise in relation to developments in conservation law. Drawing on examples from around the world but using primarily the position in the United Kingdom (UK) (especially Scotland) as the basis for exploring current and potential legal measures, an analysis of responses to the ecological crisis reveals legal arguments that attempt to create, use, expand or restrict rights of different sorts in different contexts. A 'rights-based approach' therefore may mean different things to different people, so that rather than creating a common language, 'rights-talk' may serve only to obscure the various kinds of argument being made. Whole libraries could be filled with discussion over the nature, meaning and characterization of rights, and this article does not seek to add to that but rather to use broad categories of rights to capture the different strands of argument that must be reconciled in designing effective legal responses to the biodiversity crisis.¹¹

One aspect of this engages well-established civil and political rights in considering the limits of the regulatory powers the state can deploy to further conservation objectives, both substantive issues of how far the state can go in telling people how they must use their land,¹² or even taking it from them, and procedural issues of whether due process is provided in the exercise of such powers.¹³ New mechanisms for conservation meanwhile raise novel questions as to the nature and extent of rights in relation to biodiversity. There is a tension here, with some developments pointing towards an extension of private rights, creating a market in biodiversity with credits that can be bought and sold,¹⁴ whilst others would suggest that the very nature of private rights must be limited to secure the interests of biodiversity, for example reformulating the concept of property on the basis of stewardship rather than absolute ownership.¹⁵ A different approach seeks to establish new rights for nature¹⁶ that can compete against the rights of individuals, such as including the environment among the parties entitled to a share when water rights are allocated.¹⁷

10. CT Reid, 'Between Priceless and Worthless: Challenges in Using Market Mechanisms for Conserving Biodiversity' (2013) 2 *Transnational Environmental Law* 217.

11. This statement, of course, begs the question of how one judges a response to be effective, since this can be viewed quite differently from the perspectives of different species, different scales and different human interests. Nevertheless, such differences are comparatively insignificant when faced with the need for urgent action to halt and reverse the wholesale degradation of the natural environment caused by modern societies.

12. See *R (Trailer & Marina (Leven) Ltd) v Secretary of State for the Environment, Food and Rural Affairs* [2004] EWCA Civ 1580, [2005] 1 WLR 1267, discussed in section 3 below.

13. See *R (Aggregate Industries UK Ltd) v English Nature* [2002] EWHC 908 Admin, [2003] Env LR 3, discussed in section 3 below.

14. OECD, *Handbook of Market Creation for Biodiversity: Issues in Implementation* (OECD 2004).

15. W Lucy and C Mitchell, 'Replacing Private Property: The Case for Stewardship' (1996) 55 *CLJ* 566.

16. In this paper we talk of conferring rights on 'nature', and equivalent phrases, as a convenient shorthand, grouping together what can be a varied and contested range of mechanisms for granting some legal status and recognition to the interests of the non-human elements of the environment; see, for example, C Voigt (ed), *Rule of Law for Nature: New Dimensions and Ideas in Environmental Law* (Cambridge University Press, Cambridge 2013).

17. As in Australia and South Africa, as discussed in section 6 below.

How land is managed is central to the fate of biodiversity, therefore property rights lie at the core of the consideration, but themselves have a dual nature.¹⁸ On the one hand, they define relationships between individuals, providing the essential building blocks of entitlements and obligations necessary to create a structure within which a market approach to conservation can operate. On the other, they constitute one of the categories of individual rights protected as human rights, with questions over the means and extent to which the state can intervene to limit such rights in the interest of the public good. Such issues have already been explored to some extent in the context of biodiversity, addressing both procedural and substantive concerns.

In a recent paper Scotford and Walsh explore in detail the symbiotic nature of property and environmental law and their mutual influence.¹⁹ This article shares the objective of showing how different areas of law interact but offers a sketch-map that is both narrower, its focus only on biodiversity conservation law (and in particular some innovations within it), and broader in making a more explicit link with human as well as property rights. The range of established and innovative legal mechanisms being adopted or considered is described first, followed by a discussion of the rights concerned. Two conflicting responses to the failure of the established methods to halt the loss of biodiversity are then explored. The first turns to market-based approaches as the means to enhance conservation, employing mechanisms such as biodiversity offsets and payment for ecosystem services, and requires an expansion in the range of private property rights that can be recognized and traded in some way. As the focus of conservation activity shifts from protecting individual sites and species to the ecosystem approach and to the recognition and protection of ecosystem services, this raises questions over what can be owned and whether and how the interests of various stakeholders can be reflected. While steps are being taken to introduce laws based on such approaches, a second and contrary response is to reject such developments as a 'privatization' or 'commodification' of nature, which should instead be seen as part of our shared common heritage. One means of translating this view into legal rules is to build on ideas of stewardship to argue that although property rights should be respected, they should also be viewed as inherently limited by restrictions on the right-holder's ability to act in ways that harm the ecological sustainability of the planet. A different response is offered by the recognition of rights held by or on behalf of the natural environment which can challenge the power of privately held rights, perhaps again relying on state intervention but now based on the state's role as 'trustee'²⁰ of such rights, rather than as an exercise of governmental power.²¹ These differences in underlying concepts deserve attention alongside pragmatic questions of effectiveness and efficiency in choosing the way forward for conservation law.

18. 'I think that nothing is so important for freedom as recognizing in the law each individual's natural right to property, and giving individuals a sense that they own something that they're responsible for, that they have control over, and that they can dispose of': Milton Friedman (attrib.).

19. '[P]roperty lawyers must take seriously environmental regimes and their public law dimensions, just as environmental lawyers must engage with the doctrinally and theoretically rich property law landscape within which environmental controls operate': E Scotford and R Walsh, 'The Symbiosis of Property and English Environmental Law – Property Rights in a Public Law Context' (2013) 76 MLR 1010, 1011.

20. This is used simply as a headline term to emphasize a contrast in underlying roles, without exploring, far less adopting, the full consequences of being legally recognized as a trustee in varying contexts; see section 6 below.

21. There are, of course, more radical challenges to the role of the state, such as BH Weston and D Bollier, 'Toward a Recalibrated Human Right to a Clean and Healthy Environment: Making the Conceptual Transition' (2013) 4 Journal of Human Rights and the Environment 116.

2 DEVELOPMENTS IN NATURE CONSERVATION

Laws regulating the relationship between humans and the natural world have been around since the earliest days,²² and it was in the nineteenth century that the first laws protecting wildlife, rather than just controlling its exploitation, were passed.²³ The main elements of conservation law have, however, made use of a limited set of legal mechanisms, predominantly based on telling people what they cannot do.²⁴ Thus laws have been passed prohibiting the killing or taking of designated species of animals or plants and prohibiting activities that will damage sites that have been designated for their wildlife interest, both subject to licensing arrangements to allow exemptions where other interests are deemed to outweigh those of biodiversity.²⁵ The core of conservation law remains a suite of ‘command-and-control’ regulations that aim to prevent the activities which directly harm biodiversity, and one response to the need for greater protection would be to strengthen such controls.²⁶

In recent decades, though, this core body of law has increasingly been supported by further measures that make use of other legal mechanisms.²⁷ The provision of financial incentives to encourage the management of land in ways that benefit biodiversity has been widespread, whether as a further protection for designated sites or as part of

22. Ancient laws made provision for both natural resources and living elements of the environment. One of the earliest law codes, from ancient Babylonia, has several provisions on controlling, and utilizing, the seasonal floods in Mesopotamia; GR Driver and JC Miles, *The Babylonian Laws*, vol I (Oxford University Press, Oxford 1952) 150–54, whilst Roman Law dealt in detail with the ownership of wild animals, including bees; D.41.1.5.

23. From the fourteenth century in Scotland, there had been legislation imposing restrictions on hunting and fishing, for example specifying close seasons and limiting the size and placement of fixed traps for salmon, but the aim of such laws was simply to ensure stocks for catching in future. Laws offering protection to species which were not the direct target of exploitation in any way can be traced back to the Sea Birds Preservation Act 1869. See generally, Reid, *Nature Conservation Law* (n 5) 1–11.

24. *Ibid* 38–52.

25. In Scotland it is an offence intentionally or recklessly to kill or injure any wild bird, but action against birds can be licensed in the interests of public health and safety, preventing serious damage to crops and livestock, and for some other purposes; Wildlife and Countryside Act 1981, ss 1 and 16. Under EU law, states must ensure that no plan or project is authorized which might have an adverse effect on the integrity of sites designated as part of the Natura 2000 network as the most important for wildlife and habitat, but even this can be overridden for ‘imperative reasons of overriding public interest’; Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/7, art 6.

26. For example, more sites and species could be designated as attracting the stronger categories of legal protection, the licensing conditions could be restricted, occupiers could be subjected to more intrusive requirements to maintain and enhance the biodiversity value of their land, and strict liability could be introduced as the basis for more wildlife crime offences. The law on Sites of Special Scientific Interest offers an example of such tightening of legal controls, evolving since 1949 from a system that simply noted the presence of natural interest, through one where certain actions by the occupier could be delayed (but not prevented), to one where the occupier must seek approval before carrying out some actions and can be ordered to manage the land in particular ways, whilst also being extended to regulate the activities of all those who may affect the site, not just the owner and occupier; Reid, *Nature Conservation Law* (n 5) 214–15.

27. On the development of conservation law in one jurisdiction over time, see Reid, ‘Towards a Biodiversity Law: The Changing Nature of Wildlife Law in Scotland’ (n 5). See also CP Rodgers, *The Law of Nature Conservation* (Oxford University Press, Oxford 2013) chap 1.

schemes that seek to benefit the wider countryside.²⁸ Thus in the UK there are various powers for the statutory conservation bodies to enter agreements under which land-owners receive payments to manage their land as prescribed,²⁹ whilst a level of environmentally-friendly management has become a prerequisite of eligibility for grants under European Union (EU) agricultural and rural support schemes.³⁰

These measures rely heavily on the state, in some form, playing a central role in deciding what is worthy of special care, in operating the approval and licensing systems, in enforcing legal restrictions and as a key party to the management agreements on which the current system depends. More recently attention has been turning to other mechanisms that place greater reliance on the private sector, some of which are fairly well developed outwith the UK. Three measures in particular can be highlighted. The first is the use of conservation covenants (also known as conservation easements or burdens or servitudes) to establish enduring restrictions on the use of land to serve a conservation purpose.³¹ The restriction is accepted by the landowner and can be enforced by the holder of the covenant, for example a conservation body, and crucially ‘runs with the land’, binding future owners. Covenants are thus a matter of private law rather than public regulation, but in common law countries these are likely to require special legislative support since legal policy has historically been against supporting such enduring limitations on the use of land, unless for the benefit of specific neighbouring land.³² Thus in the United States of America (USA), almost every state has legislated to allow conservation easements,³³ in many cases following the Uniform Conservation Easements Act produced by the National Conference of Commissioners on Uniform State Laws in 1981.³⁴ In Scotland conservation burdens were introduced as part of the wholesale reform of land law at the start of this century³⁵ and the Law Commission in England and Wales has been considering proposals to introduce the mechanism.³⁶

A second mechanism is the use of biodiversity offsets, whereby development that causes some unavoidable loss to biodiversity is permitted to proceed provided that compensatory action is taken elsewhere to ensure that overall there is no net loss

28. CP Rodgers (n 27) chap 4.

29. Reid, *Nature Conservation Law* (n 5) 47–8, 181–2, 208, 219, 230; Rodgers (n 27) 112–21.

30. For an overview of EU measures, see European Commission, ‘Agriculture and the environment: Introduction’ (EU, 5 December 2013) <http://ec.europa.eu/agriculture/envir/index_en.htm> accessed 10 December 2013; Rodgers (n 27) 122–40.

31. For the background and the challenges faced in designing an effective system of covenants see CT Reid, ‘Conservation Covenants’ (2013) 77 *The Conveyancer and Property Lawyer* 176.

32. This antipathy to such covenants or easements ‘in gross’ has been driven by concern about the proliferation of enduring restrictions on land and their impact on land as an asset which can be freely used and transferred by the current holder, as well as the difficulty over time in being able to keep track of what rights exist and who can enforce them; Law Commission, *Making Land Work: Easements, Covenants and Profits à Prendre* (Law Com No 327, 2011) para 2.24.

33. RH Levin, *A Guided Tour to the Conservation Easement Statutes* (Land Trust Alliance 2010). The growth of conservation easements in the USA has been influenced by the comparative lack of direct regulation over private land and the generous tax breaks for creating easements in some circumstances; see Reid ‘Conservation Covenants’ (n 31).

34. The Uniform Act is available at <http://www.uniformlaws.org/shared/docs/conservation_easement/ucea_final_81%20with%2007amends.pdf> accessed 10 December 2013.

35. Abolition of Feudal Tenure etc. (Scotland) Act 2000, ss 26–32; Title Conditions (Scotland) Act 2003, ss 38–48.

36. Law Commission, *Conservation Covenants* (Law Com No 349, 2014).

of biodiversity. This is a feature of EU habitat protection law, with compensatory action being required if damage to a Natura 2000 site is permitted because of imperative reasons of overriding public importance,³⁷ whilst 'mitigation' is a well-established feature of the law in the USA protecting areas of wetlands.³⁸ Again proposals for the introduction of a formal scheme of this type are being considered in England.³⁹

Payment for ecosystem services (PES) presents a third mechanism, based on recognizing that land left in its 'natural' state⁴⁰ is not actually unproductive, as it is often perceived, but is providing a range of services of great practical, economic and spiritual value to society. Studies at an international level have identified many such contributions: regulating services (e.g. filtration of pollutants by wetlands, climate regulation through carbon storage and water cycling, pollination and protection from disasters), cultural services (e.g. recreation, spiritual and aesthetic values, education), provisioning services (e.g. wild foods, crops, fresh water and plant-derived medicines) and supporting services (e.g. soil formation and nutrient cycling).⁴¹ What PES schemes endeavour to achieve is a means of payment to the providers of these services from the users, presenting an incentive to providers to maintain and enhance the services and saving the users the vast costs of replacing the services if they were lost. Such schemes can operate at a very general level, such as the environmental components of the EU's Common Agricultural Policy,⁴² or seek to identify much more precisely the specific service provider and user, such as the New York City and Catskills Watershed PES scheme.⁴³

As well as all being based on private relationships, the second and third examples also involve an element of market approaches, recognizing the value of biodiversity in a way that allows it to be traded or paid for. This can be seen as a positive development, allowing biodiversity to be taken into account in the economic calculations that

37. Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [1992] OJ L206/7, art 6.

38. For an overview of wetland mitigation banking in the USA, see EPA, 'Mitigation Banking Factsheet: Compensating for Impacts to Wetlands and Streams' (EPA, 5 October 2012) <<http://water.epa.gov/lawsregs/guidance/wetlands/mitbanking.cfm>> accessed 10 December 2013.

39. Defra, *Biodiversity Offsetting in England* (Green Paper, 2013).

40. Very little of the world is in a truly natural condition, but rather has been influenced by centuries of human intervention, especially in densely populated areas such as the British Isles.

41. The Economics of Ecosystems and Biodiversity (TEEB), *Mainstreaming the Economics of Nature: A Synthesis of the Approach, Conclusions and Recommendations of TEEB* (2010) 7, and Annex 2 and the sources referred to there. See generally the website of the TEEB project <<http://teebweb.org>> accessed 10 December 2013.

42. For example, a requirement for receipt of direct support is maintaining land in good agricultural and environmental condition; Council Regulation (EC) No 73/2009 of 19 January 2009 establishing common rules for direct support schemes for farmers under the common agricultural policy and establishing certain support schemes for farmers, amending Regulations (EC) No 1290/2005, (EC) No 247/2006, (EC) No 378/2007 and repealing Regulation (EC) No 1782/2003 [2009] OJ L30/16.

43. This is one of the most famous PES schemes, which has resulted in approximately US\$6 billion in savings for those supplying New York with water by conserving the upper catchment area (the Catskill) rather than investing in upgrading water treatment plants. For more on this, see AF Appleton, 'How New York City Used an Ecosystem Services Strategy Carried out Through an Urban-Rural Partnership to Preserve the Pristine Quality of its Drinking Water and Save Billions of Dollars and What Lessons it Teaches about Using Ecosystem Services' (The Katoomba Conference, Tokyo, November 2002).

dominate public and private policy choices,⁴⁴ or as an unacceptable commodification of nature that adopts a fundamentally misconceived view of our relationship with nature.⁴⁵ That latter perspective would call not for an extension of private rights but for their qualification to respect the interests of those with whom we share the Earth, for example through ideas of stewardship.⁴⁶ The extension of existing regulatory approaches intensifies tensions between the rights of individuals and of the state whilst the new approaches call for either an expansion of private rights or a redefinition of them in a way that respects nature.⁴⁷ Whatever approach is taken, an increased priority for biodiversity conservation will create an arena for debates and disputes over rights.

3 STRENGTHENED REGULATION

Strengthening conservation measures through the adoption of stricter regulation inevitably involves the restriction of the rights of various parties, bringing into play questions relating to both substantive and procedural aspects of human rights and the legitimacy of governmental action. The issues that arise are common to other areas of regulation, but examples have already emerged in the conservation context.

In respect of substantive rights, in the UK the right ‘to the peaceful enjoyment of ... possessions’ is one of those protected by the European Convention on Human Rights,⁴⁸ given effect through the Human Rights Act 1998. This right is, however, qualified and can be restricted ‘in the public interest and subject to conditions provided for by law’.⁴⁹ Case law from the European Court of Human Rights shows that property rights can legitimately be limited in pursuit of environmental objectives. Whether there has been a breach of the Convention will depend on the individual circumstances, with the decision resting on ideas such as a fair balance of interests and whether the interference with the individual’s rights can be justified as a proportionate measure to achieve a permissible public goal.⁵⁰

The potential for nature conservation measures to offend against the rights of the landowner has been recognized in English case law relating to Sites of Special Scientific Interest (SSSIs). These sites are areas of land designated for their conservation value where the owners’ freedom to use their land is restricted to protect and enhance its natural features.⁵¹ In *R (Fisher) v English Nature*,⁵² it was the designation of land as an SSSI that was challenged, but on the facts it was held that there was no basis for

44. ‘The real benefits of biodiversity, and the costs of its loss, need to be reflected within economic systems and markets’, *Global Biodiversity Outlook 3* (n 1) 12.

45. P Burdon (ed), *Exploring Wild Law: The Philosophy of Earth Jurisprudence* (Wakefield Press, Cambridge, MA, USA 2011).

46. W Lucy and C Mitchell (n 15).

47. For example, by ensuring that where laws refer to the ‘public interest’ this includes the interests of the whole biotic community or that landowners have duties to care for their land; C Cullinan, ‘Finding our Way to a Viable Future: A Response to Professors Warren and Lee’ (2006) 18 ELM 18.

48. Art 1 of Protocol 1.

49. *Ibid.*

50. For example, *Fredin v Sweden* (1991) 13 EHRR 784; *Tre Traktörer AB v Sweden* (1989) 13 EHRR 309; *Matos e Silva Lda v Portugal* (1997) 24 EHRR 573. See also *United Kingdom Association of Fish Producer Organisations v Secretary of State for Environment, Food and Rural Affairs* [2013] EWHC 1959 (Admin), discussed below.

51. See n 7.

52. [2004] EWCA Civ 663, [2005] 1 WLR 147.

arguing that bringing a site within this regime had a disproportionate impact on the landowner which the designating body had failed to take into account. The issue was more fully explored in *R (Trailer & Marina (Leven) Ltd) v Secretary of State for the Environment, Food and Rural Affairs*⁵³ where the argument focused on the strengthening of the SSSI regime in 2000 when for the first time landowners were absolutely prohibited from carrying out certain listed operations on their land without gaining specific official approval, and could even be required to manage their land in particular ways if attempts to achieve results by agreement were not successful.⁵⁴ It was argued that these controls resulted in a significant reduction in the profit-earning capacity and hence in the value of land designated as an SSSI, with the consequence that in the absence of compensation there was a breach of Article 1 of Protocol 1. After studying the case law from the European Court of Human Rights, the court said that not every restriction of property requires compensation; 'provided the state could properly take the view that the benefit to the community outweighs the detriment to the individual, a fair balance will be struck, without any requirement to compensate the individual', although in other circumstances compensation would be required.⁵⁵ Examining the detailed statutory provisions and their effect, it was held that they did not 'come anywhere near the hypothetical category of a measure which is so manifestly disproportionate that it offends against the first sentence of Article 1 of the First Protocol'.⁵⁶

In the UK, therefore, there may be scope for considerable strengthening of conservation measures before the threshold is reached where any rules restricting the rights of landowners might involve a breach of human rights.⁵⁷ In other jurisdictions, though, the threshold may be set differently so as to offer greater priority to property rights. In the USA the concept of 'regulatory takings' is likely to permit the state much less freedom of action, restricting the extent to which direct regulatory solutions can be adopted.⁵⁸ The issue here is a consequence of the idea that the government can deprive owners of their property not just by direct expropriation but also by intrusive regulation that removes the owners' freedom to use the property as they wish and thus its effective value.⁵⁹ Expropriation by the state is lawful only if compensation is provided,⁶⁰ and the argument becomes one over the threshold where mere regulation (for conservation or other purposes) becomes a 'taking' and therefore unlawful unless compensation is provided.⁶¹ Such arguments reflect wider debates over where the

53. [2004] EWCA Civ 1580, [2005] 1 WLR 1267.

54. Amendments to ss 28–28R of the Wildlife and Countryside Act 1981 introduced by the Countryside and Rights of Way Act 2000, sch 9.

55. *R (Trailer & Marina (Leven) Ltd)* (n12) [58].

56. *Ibid* [71].

57. On the lack of consistency in deciding when compensation was due see J Rowan-Robinson and A Ross, 'Compensation for Environmental Protection in Britain: The Legislative Lottery' (1993) 5 JEL 245, written before the Human Rights Act 1998 gave effect to the European Convention on Human Rights within the UK.

58. See discussion of carbon credits in section 4 below.

59. There is a substantial, if not always straightforward, volume of case law on when regulation of property amounts to its 'taking', for example *Penn Central Transportation Co v New York City* 438 US 104 (1978); *Lucas v South Carolina Coastal Council*, 505 US 1003 (1992); *Koontz v St Johns River Water Management District*, 568 US (forthcoming) (2013) (docket no 11-1447).

60. US Constitution, amend. V.

61. For an argument that there should be compensation for landowners affected by the Endangered Species Act, see NS Arnold, 'The Endangered Species Act, Regulatory Takings, and Public Goods' (2009) 26 Social Philosophy and Policy 353.

balance between public and private interests should lie, debates that have a much longer history⁶² but are now framed in terms of constitutional rights.

The procedures by which such conservation measures are imposed, and related disputes are resolved, offer further areas of potential conflict with human rights, offending against due process, but again such measures simply provide the setting within which more widespread tensions have to be resolved.⁶³ Article 6 of the European Convention provides that ‘in the determination of his civil rights and obligations ... everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal’. This provision has been the basis of several challenges to statutory decision-making procedures in the UK. For example, the procedures for designating SSSIs have withstood such challenges, most notably in *R (Aggregate Industries UK Ltd) v English Nature*,⁶⁴ where it was accepted that the consequences that follow designation mean that this step by itself affects ‘civil rights and obligations’ so as to invoke Article 6.⁶⁵ The fact that English Nature notifies and then confirms the designations itself, without any appeal to an external body, means that there is a lack of formal impartiality and independence at that stage, but in view of the procedural safeguards in the process, the nature of the decision (one of policy not of fact) and the availability of judicial review, the procedure as a whole was held to meet the standard set in Article 6.⁶⁶ For the same reasons it has been held that Article 6 is satisfied by decision-making procedures in the town and country planning system that lack appeal, or offer an appeal to Ministers rather than outwith the administration.⁶⁷ Such issues, though, are ones that can arise in any area of regulation, whereas other developments in conservation law raise novel issues in relation to the extent of private rights.

4 STRENGTHENED PRIVATE RIGHTS

A greater emphasis on private rights lies at the heart of some of the mechanisms emerging as an alternative to direct regulation in the attempt to further biodiversity. Schemes based on payment for ecosystem services rest on an identification and legal recognition of who exactly has the right to claim payment and for what exactly they are being paid, while biodiversity offsetting schemes operate on a basis of creating (in some form) biodiversity ‘units’ which can be held and traded. Such developments focus attention on the question of who owns ‘nature’ in a way that the law has not previously had to deal with, and on rights viewed from the perspective of property law rather than as part of constitutional and human rights regimes. This requires

62. On the background to compensatory requirements, see F Mann, ‘Outline of a History of Expropriation’ (1959) 75 LQR 188.

63. Substantive and procedural concerns combined in *Matos e Silva Lda v Portugal* (1997) 24 EHRR 573 where the European Court of Human Rights held that the fact that the process of designating a nature reserve, and the uncertainty over what uses of the land were permitted, had dragged on for over 13 years with little progress amounted to a breach of the landowner’s rights under both art 6 and art 1 of Protocol 1.

64. [2002] EWHC 908 Admin, [2003] Env LR 3.

65. *Ibid*; *R (Boyd) v English Nature* [2003] EWHC 1105 Admin.

66. *R (Aggregate Industries UK Ltd)* (n 13).

67. *Bryan v United Kingdom* (1996) 21 EHRR 342; *Chapman v United Kingdom* (2001) 33 EHRR 18; *County Properties Ltd. v Scottish Ministers* 2002 SC 79; *R v Secretary of State for Environment, Transport & the Regions, ex parte Holding & Barnes plc* [2001] UKHL 23, [2003] 2 AC 295.

attention to be paid not so much to the relationship between the individual and the state, but rather to the relationships between individuals and to the role of property as the key to the multitude of individual conflicts, settlements and transactions that take place in any society which recognizes (to any extent) private ownership and a market economy.⁶⁸

It is now widely accepted that effective conservation depends on taking an ecosystems approach. The Convention on Biological Diversity defines an 'ecosystem' as 'a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit',⁶⁹ and the ecosystem approach calls for 'adaptive management to deal with the complex and dynamic nature of ecosystems',⁷⁰ noting that this requires attention to ecosystems at all scales, 'a grain of soil, a pond, a forest, a biome or the entire biosphere'.⁷¹ Although now occasionally modified by statutory intervention, the traditional legal approach does not match this holistic view at all. Instead the natural world has been fragmented into different elements which are treated quite separately, ignoring their role as part of an integrated ecosystem. Land is divided into units on the basis of boundaries which usually have no link to natural features,⁷² and each unit can be managed individually with no regard for the consequences for the natural world beyond its boundaries, except to the extent that there is interference with other property rights.⁷³ Plants are treated simply as pieces of property. As accretions to the soil, they belong to the owners of the land⁷⁴ who are therefore (in the absence of other restrictions) entitled to exploit or destroy them as they wish. For animals, there is a distinction between domesticated and wild animals, the former being wholly items of private property throughout their lives, the latter being owned by nobody unless and until killed or captured. Thus although game and fishing rights may give their holders some legal interest in them, wild animals may fall wholly outwith the law's attention, except to the extent that the state asserts a general right in them.⁷⁵

Mechanisms that try to deal with biodiversity offsetting or selling ecosystem services have to adapt to this framework or create new sorts of rights. The starting-point is often the extensive rights of the owner over the land, which enables control over how it is used or managed, and traditional legal mechanisms are suitable to the extent that conservation can be secured simply by restricting the owner's freedom of action, for example prohibiting building or other forms of development. In such cases, there is no need to create any new substantive rights, simply to provide a means for

68. This statement, of course, glosses over vast descriptive and normative issues but aims to capture what is hoped to be an uncontroversial observation, that human rights lawyers view the world differently from property lawyers.

69. Convention on Biological Diversity (n 2) art 2.

70. Convention on Biological Diversity COP 5 Decision V/6 (2000) para 3.

71. *Ibid.*

72. Even where natural features are used they are as likely to split ecosystems (e.g. using a river as a boundary) as to reflect them (e.g. using a watershed).

73. The need to overcome this underpins the emerging concept of connectivity conservation; B Lausche and others, *The Legal Aspects of Connectivity Conservation: A Concept Paper* (IUCN 2013).

74. There may be special rules to deal with the ownership of crops between landlord and tenant or when properties are sold, for example *Boskabelle Ltd v Laird* [2006] CSOH 173, 2006 SLT 1079.

75. For example, in Australia as discussed in *Yanner v Eaton* [1999] HCA 53, [1999] 201 CLR 351; for the position in the USA see section 6 below.

ensuring that the owner's established rights are limited. Even here, though, there are difficulties arising from the Anglo-American tradition that is unwilling to accept enduring restrictions on the use of land except for the benefit of neighbouring property.⁷⁶ To overcome this, as referred to above, statutory intervention has been needed in the USA to enable the creation of conservation easements, whereby a landowner accepts limitations on the future use of the land, limitations that will bind all future owners and are enforceable in the hands of a conservation trust or other holder which has no interest in nearby land.⁷⁷ The benefit of such easements is thus a new form of right, which in turn requires rules on transfer, extinction, etc. Such issues are currently being explored for England and Wales in the Law Commission's proposals for the introduction of conservation covenants.⁷⁸

In property law, restricting existing rights is easier⁷⁹ than creating new obligations to take positive steps to maintain or enhance biodiversity. These can be imposed by direct regulation, for example, land management orders in relation to SSSIs,⁸⁰ or can be the subject of agreement. Management agreements requiring positive conservation action, and providing payment for undertaking these, are a mainstay of conservation measures in the UK,⁸¹ but again have required statutory provisions to create rights (straddling public and private law) held by official conservation bodies⁸² that go beyond the scope of existing contractual frameworks to ensure that they bind successive owners and occupiers. Utilizing the power of the landowner's legal position can therefore be effective, but does have the disadvantage of treating each plot of land as a separate unit, divorced from the wider ecosystem. Co-ordinated agreements with several owners can obviously allow for a coherent programme across a wider area,⁸³ but achieving a true ecosystem approach in this way will be challenging.

A clearer role for private rights emerges in relation to the trading aspect of biodiversity offsets and payment for ecosystem services (PES). Under PES schemes, for example, it must be determined what PES entitlements can be sold and who can sell them. The provision of ecosystem services is directly related to what happens on the land. Yet there may be several parties with rights in the land that affect its management and therefore what ecosystem services the land can deliver. The allocation of rights and responsibilities between landowner, tenant and holder of lesser rights (e.g. over minerals or game), and how any new entitlements fit within this structure, will make a big difference to who has the power to decide how the land is managed.⁸⁴

76. Law Commission, *Easements, Covenants and Profits à Prendre: A Consultation Paper* (n 32) 15–18.

77. RH Levin (n 33).

78. Law Commission, *Conservation Covenants* (n 36).

79. Subject to human rights constraints.

80. Nature Conservation (Scotland) Act 2004, s 29; 'management notices' in England and Wales, Wildlife and Countryside Act 1981, s 28K.

81. Rodgers (n 27) 111–31.

82. Predominantly these are public authorities, but on occasions legal privileges are extended to other bodies such as the National Trusts (National Trust Act 1907, National Trust for Scotland Order Confirmation Act 1935) and in Scotland those NGOs recognized as holders of conservation burdens (Title Conditions (Scotland) Act 2003 (Conservation Bodies) Order 2003, SSI 2003/453).

83. For example, deer management agreements under the Deer (Scotland) Act 1996, s 7.

84. For example, in relation to who has control over the management of certain wildlife, the Ground Game Act 1880 provides that although rights to game can be retained by the landowner or passed to someone other than the tenant when land is leased, the tenant as occupier will always have the concurrent right to kill rabbits and hares.

To the extent that the service relies on restricting the exercise of existing rights, a clear basis for payment can be identified, but delivery of an ecosystem service may well further depend on accepting additional positive obligations to look after land in a particular way, and on the overall effect of exercising (or choosing not to exercise) a range of rights over the land. Furthermore, such rights may be held by various parties, so that identifying whether and to what extent each is entitled to payment is complex.⁸⁵ These issues are particularly severe in areas characterized by communal ownership and occupation and where there may be conflicting interests that make it difficult to allocate obligations and entitlements.⁸⁶ The issue is further complicated by the fact that ecosystem services will often be provided by areas of land that do not constitute a single occupancy unit, for example all or part of a water catchment, not individual farms or estates. Moreover, existing payment systems tend to pay for inputs rather than outputs, in other words for work done today, such as planting a hedge, which will deliver ecosystem services at a point in the future,⁸⁷ so that consideration must also be given to the likelihood of different interests in and occupation of the land over the length of time that is required to deliver biodiversity benefits.

Accordingly, although entitlements to payments for providing ecosystem services must be identified and recognized, their relationship with other rights makes it hard to see how they can exist exclusively as a distinct new set of free-standing property rights. There is an intimate connection with the rights of the owners and occupiers of land. Yet the services cannot be provided simply by restrictions imposed on existing rights (akin to easements or covenants in land law), and the nature of any new obligations must be clear. They could be treated as separable from other uses of the land and transferable from one holder to another, as is the case under some aspects of the EU agri-environment support schemes.⁸⁸ Alternatively, they could be attached to existing rights of occupation, or ownership, ensuring that the right to payments is not separated from the obligations of the holder to care for the land they occupy.⁸⁹ Under some of the existing schemes there is a mechanism in place to ensure that where there is change in occupancy and entitlements to payments are to be transferred, the landlord has a responsibility to ensure that the obligations linked to such payments are also transferred to the new tenant.⁹⁰

85. W Nsoh and CT Reid, 'The Privatisation of Biodiversity: Who Can Sell Ecosystem Services?' (2013) 25 ELM 12.

86. For example, common land, on which see C Rodgers, E Straughton, A Winchester and M Pieraccini, *Contested Common Land: Environmental Governance Past and Present* (Earthscan, London 2011).

87. For example, on how payments are calculated under the agri-environments schemes in England, see Natural England, *Agri-environment Schemes in England 2009: A Review of Results and Effectiveness* (2009) 19–26. See also the BushTender programme of the State of Victoria (Australia): Department of Sustainability and Environment, *BushTender: Rethinking Investment for Native Vegetation Outcomes. The Application of Auctions for Securing Private Land Management Agreements* (State of Victoria Department of Sustainability and Environment, 2008).

88. For example, under the Single Payment Scheme, entitlements can be transferred by sale or as a gift with or without any land. See Defra, *Single Payment Scheme Handbook for England 2013 Including the Uplands Transitional Payment* (Defra, January 2013) 20–22.

89. On the extent of stewardship obligations, see section 5 below.

90. Nsoh and Reid (n 85) 19. Further provision may be needed to ensure the continuation of obligations in the event of the winding up of the party involved, cf. the dispute over whether the

Similar issues arise under biodiversity offsetting schemes whereby biodiversity credits are generated by landowners who commit to enhance and protect biodiversity values on their land.⁹¹ These credits can then be sold to developers wishing or required to offset the negative impacts of development elsewhere for which they are responsible. Such arrangements can generate funds for the management of conservation sites, as well as offsetting the adverse impacts on biodiversity. Allocating entitlements, liabilities and responsibilities calls for a trading system that not only makes sharing responsibilities and benefits easier, particularly among those who already hold ownership or occupational rights in areas with multiple occupancies,⁹² but also that assures buyers and sellers of the security of the rights over the ecosystems services or biodiversity credits they trade. Such a system may require the creation of new rights whose character may well depend on the character of the asset or activity from which they are created. The experience with credits in other jurisdictions has shown that creating a workable and secure offsetting regime may not be quite straightforward,⁹³ even if effective replacement of the habitat lost can actually be achieved.⁹⁴ The complications from a legal perspective (regardless of other considerations) increase if the compensatory ecological gains lie beyond the immediate vicinity of the development site or offsets are to be used to secure benefits for various stages of migratory species' journeys.⁹⁵

There are parallels with the development of carbon credits. Rights to carbon credits that allow carbon emissions and savings to be traded are viewed in some places as separate from the broader rights to forest, land, and other immovable property, while in others they remain attached to ownership and occupational rights. For example, the district court in the State of Louisiana in the USA has held that the 'right to report, transfer, or sell carbon credits is part of the bundle of rights associated with property ownership'.⁹⁶ This suggests that credits are a feature of holding real property, arising automatically.⁹⁷ Similarly, in an unpublished opinion in the State of California, the court found that a claimant (Kaiser) could claim ownership of emission reduction credits generated from the use of leased equipment, because

liquidators of a company operating open-cast coal mines can disclaim the land and the obligations to undertake restoration of the site; *Scottish Environment Protection Agency v Joint Liquidators of The Scottish Coal Company Ltd* [2013] CSIH 108.

91. Defra, *Biodiversity Offsetting in England* (n 39); Business and Biodiversity Offsets Programme (BBOP), *Biodiversity Offset Design Handbook* (2012); eftec, IEEP and others, *The Use of Market-based Instruments for Biodiversity Protection: The Case of Habitat Banking – Technical Report for European Commission DG Environment* (eftec 2010) 29–53; J Treweek, *Scoping Study for the Design and Use of Biodiversity Offsets in an English Context: Final Report to Defra* (Contract NE 0801) (2009).

92. See for example, Crofters (Scotland) Act 1993, ss 50 and 50A.

93. Business and Biodiversity Offsets Programme (BBOP), *Biodiversity Offset Design Handbook – Updated* (BBOP, Washington DC 2012).

94. M Maron and others, 'Faustian Bargains? Restoration Realities in the Context of Biodiversity Offset Policies' (2012) 155 *Biological Conservation* 141.

95. A parallel is shown by the struggles to establish widely accepted standards and verification schemes for carbon credits; B Smith, 'Transnational Carbon-Trading Standards: Improving the Transparency and Coordination of Post-Kyoto Carbon Trading Markets' (2012) 30 *Pace Environmental Law Review* 325.

96. *Roseland Plantation, LLC v US Fish & Wildlife Service et al.*, 2006 US Dist LEXIS 29334 (W.D. La. 2006) [10].

97. *Ibid* [8].

the possessory interest in leased equipment entitled Kaiser to operate the equipment, which operation produced emissions.⁹⁸ The above opinion by the court appears to contradict the existing position in California, where the law remains reluctant to recognize such new rights in credits, mainly to avoid invoking the Takings Clause of the Fifth Amendment to the United States Constitution under the cap-and-trade market.⁹⁹ The concern is that if a carbon credit were recognized as property, then California would have to compensate the owner if it ever revoked any carbon credits.¹⁰⁰ As a result, an offset credit is defined only as a tradable compliance instrument¹⁰¹ that ‘does not constitute property or property right’.¹⁰² The cost of having to buy and ‘retire’ credits would undoubtedly be a burden hindering California’s ability to achieve its target of reducing greenhouse gas emissions,¹⁰³ and it seems that the main reason for failing to recognize carbon credits as property is the fear of having to compensate owners when the credits are revoked.¹⁰⁴ This, rather than the application of the standard tests for identifying when entitlements qualify as property rights, seems to be the driving force behind the denial of property status to credits.

These decisions reveal the tension and potential for mismatches, as ‘rights’ are perceived from different viewpoints. Some form of ‘rights’ is necessary for carbon credit transactions to occur, and from the private law perspective it seems odd not to recognize these as property. Yet that label carries further consequences in terms of how they are viewed constitutionally, consequences that are seen as having such undesirable cost implications that they should be avoided. Stopping short of recognizing credits as property may hinder the development of a fully effective network of rights that will enable trading to operate effectively (what is the status of such ‘not-quite-property’ rights in relation to insolvency, use of securities, and transferability in terms of formalities and guarantees of title?). A further point to note about these Californian decisions is that the uncertainty over the legal status of carbon credits even within the same jurisdiction highlights the difficulty involved if, to achieve desired outcomes, offsets are to be expanded beyond a single locality; when there are difficulties in establishing a single consistent framework within one jurisdiction, the prospect of a clear international position seems distant.

Under UK law too, if a PES entitlement or biodiversity credit is created, it may be possible that such a credit will not be deemed to be a property interest entitled to full protection against interference. This position has been tested in a recent case relating to fish quota allocations, where the High Court has suggested that fixed quota allocations are ‘possessions’ falling within Article 1 of Protocol 1 of the European Convention on Human Rights and Article 17 of the European Union

98. *Kaiser International Corporation v Hearing Board of the South Coast Air Quality Management District, et al.* (2006 Cal App Unpub LEXIS 3135) [21].

99. J Monterubio, ‘Recognition of Property Rights in Carbon Credits under California’s New Greenhouse Gas Cap-and-Trade Program’ (2012) 12 Sustainable Development Law & Policy 32, 64–5; MW Gehring and C Streck, ‘Emissions Trading: Lessons From SO_x and NO_x Emissions Allowance and Credit Systems Legal Nature, Title, Transfer, and Taxation of Emission Allowances and Credits’ (2005) 35(10) Environmental Law Reporter 219, 221–2.

100. Monterubio (n 99) 32.

101. California Code of Regulations tit 17, § 95802(a)(12).

102. California Code of Regulations tit 17, § 95820(c).

103. Gehring and Streck (n 99), 222.

104. T Allan and K Baylis, ‘Who Owns Carbon? Property Rights Issues in a Market for Greenhouse Gases’ (2006) 7 Current Agriculture, Food and Resource Issues 104, 106.

Charter of Fundamental Rights.¹⁰⁵ This characterization is based on the grounds that, ‘albeit built very much of sand, there is a trade in fixed quota allocation units ... and they had a monetary value and could be marketed for consideration’.¹⁰⁶ Despite taking this view, the court concluded that the Secretary of State’s decision to change how the fishing quota was to be allocated did not ‘constitute an interference with or a deprivation of possessions ... and the producer organisations and their members have no proprietary interest in the fishing stock itself and fixed quota allocation units ... give no rights to any specific amount of fishing stock in advance of the annual Ministerial decisions on quota’. As such, ‘any interference or deprivation is in accordance with law and justified [and] ... the decision is not in breach of any substantive legitimate expectation nor it is [*sic*] retrospective’.¹⁰⁷ The quotas are thus a form of property (‘possession’ under European Convention jurisprudence), but do not enjoy the same level of protection and priority as many other forms of property under that regime. Again the tension between different perspectives is recognized, and a pragmatic rather than principled solution adopted.

The adoption of conservation schemes resting on PES entitlements or biodiversity credits requires the recognition of new rights that can be valued, sold and traded. Yet questions remain over the nature of such rights – public or private – and the extent to which their existence may require a redefinition of existing rights if the conservation objectives are to be achieved.¹⁰⁸ Additional rights held by the holders of existing rights in land lie at the heart of such schemes, but the nature, extent and quality of these existing rights is itself an area of debate.

5 LIMITING PRIVATE RIGHTS

The development of new forms of property as discussed above raises not just technical legal problems but ethical concerns over the ‘commodification’ of nature. The increasing dominance of market-based approaches in various spheres is severely criticized by those who argue that this fails to recognize that many features of our life have values beyond economic ones and that the very exercise of trying to give them a monetary representation largely destroys that value.¹⁰⁹ Biodiversity can be viewed as the common heritage of mankind,¹¹⁰ not a commodity to

105. *United Kingdom Association of Fish Producer Organisations v Secretary of State for Environment, Food and Rural Affairs* [2013] EWHC 1959 (Admin) [113].

106. *Ibid.*

107. *Ibid* [115]–[117].

108. Nsoh and Reid (n 85) 19–20.

109. As examples of criticisms of the over-extension of a market-based approach see: M Sagoff, ‘Economic Theory and Environmental Law’ (1980–81) 79 *Mich L Rev* 1393; F Hirsch, *Social Limits to Growth* (Routledge & Kegan Paul, London 1997); G Winter, ‘The Climate is No Commodity: Taking Stock of the Emissions Trading System’ (2010) 22(1) *Journal of Environmental Law* 1; D Satz, *Why Some Things Should Not Be for Sale: The Moral Limits of Markets* (Oxford University Press, New York 2010); N Graham, ‘The Mythology of Environmental Markets’ in D Grinlinton and P Taylor (eds), *Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges* (Brill, Leiden 2011); M Sandel, *What Money Can’t Buy: The Moral Limits of Markets* (Allen Lane, London 2012)).

110. Preamble to the Convention concerning the protection of the World Cultural and Natural Heritage (adopted 16 November 1972, entered into force 17 December, 1975) 1037 UNTS 151.

be traded,¹¹¹ and on that basis it is fundamentally wrong to be talking about accepting that the damage to any natural environments can be offset by gains in other places or of different kinds.¹¹²

Such concerns are reflected in a different departure from the traditional legal position, which is not to establish new private rights in relation to nature but to argue that existing rights should be viewed as subject to limitations which respect the natural world. Again the focus is on property rights,¹¹³ where arguments over stewardship and related concepts have been debated for centuries.¹¹⁴ Coyle and Morrow present an account of the evolution of ideas of property rights towards a more absolutist view based on human 'dominion' rather than one based on having responsibilities for the natural environment.¹¹⁵ The nature of property rights remains contested,¹¹⁶ with several competing strands.¹¹⁷ Any approaches based on the owner's total control of property have come under challenge both in terms of the fundamental way of thinking about land ownership, for example Lucy and Mitchell's call for a stewardship approach¹¹⁸ and Pascoe's analysis of the role of social obligation theory,¹¹⁹ and in more specific contexts, for example justifying the landowner's responsibility for remediating contaminated land¹²⁰ or examining responsibilities for nature conservation.¹²¹ A complete reassessment of the position of landowners is also a core element of the more far-reaching challenge to the conventional way of thinking about the human relationship with nature posed by Wild Law or Earth Jurisprudence,¹²² which calls for laws to allow 'freedom for all members of the Earth Community to play a role in the continuing co-evolution of the planet'.¹²³ The potential of the public trust doctrine discussed in the next section offers a further challenge to the notion of the owner's absolute control of their land. This is not the place for a full examination of such views, but the potential for property rights to be redefined should be noted.¹²⁴

111. The tradability of biodiversity credits as freely exchangeable commodities lies at the heart of biodiversity offsetting arrangements such as those proposed by Defra (see Defra, *Biodiversity Offsetting in England* (n 39)).

112. Reid, 'Between Priceless and Worthless: Challenges in Using Market Mechanisms for Conserving Biodiversity' (n 10) 231–3.

113. Scotford and Walsh (n 19).

114. D Grinlinton and P Taylor (eds), *Property Rights and Sustainability: The Evolution of Property Rights to Meet Ecological Challenges* (Martinus Nijhoff, Leiden 2011).

115. S Coyle and K Morrow, *The Philosophical Foundations of Environmental Law: Property, Rights and Nature* (Hart Publishing, Oxford 2004).

116. 'Indeed, perhaps the single most striking feature of English land law has been the absence, within its conceptual scheme, of any overarching notion of ownership'; K Gray and S Gray, *Elements of Land Law* (5th edn, Oxford University Press, Oxford 2009) 56.

117. *Ibid* 104–14.

118. Lucy and Mitchell (n 15). For a detailed analysis of different concepts of stewardship, see E Barritt, 'Conceptualising Stewardship in Environmental Law' (2014) 26 JEL 1.

119. S Pascoe, 'Social Obligation Norm and the Erosion of Land Ownership?' (2012) 76 *The Conveyancer & Property Lawyer* 484.

120. E Lees, 'Interpreting the Contaminated Land Regime: Should the 'Polluter' Pay?' (2012) 14 *Env L Rev* 98.

121. Rodgers (n 27) 306–10.

122. C Cullinan, *Wild Law: A Manifesto for Earth Justice* (2nd edn, Green Books, Totnes 2011).

123. *Ibid* 31.

124. A convenient introduction to different meanings of stewardship is D McGillivray, 'Water Rights and Environmental Damage: An Inquiry into Stewardship in the Context of Abstraction Licensing Reform in England and Wales' (2013) 15 *Env L Rev* 205, 205–14; and see Barritt

The rights of the landowner are central to both regulatory and market-based approaches to conservation, but exactly what these rights are, as has been seen above, can be contested. Within the UK some of the supposedly fundamental features of landownership have already been substantially altered in recent decades, calling into question the validity of any absolutist view as an accurate starting point for describing what it is to be an owner of land. The rights to do what one wants with one's land and to exclude others from it would be widely viewed as core attributes of ownership as opposed to lesser rights in land, yet both are significantly constrained. The introduction of the modern town and country planning system after the Second World War removed the owners' right to develop their land without official permission and since 'development' includes material changes of use as well as most forms of construction, this is a major inroad into the owners' freedom to use and do with their land as they wish.¹²⁵ More recently, another of the fundamental aspects of ownership, the right to exclude others from the land has also been significantly eroded by legislation introducing public rights of access, over 'open country',¹²⁶ and coastal land¹²⁷ in England and Wales and more extensively in Scotland.¹²⁸

There are many other rules which limit the freedom of action of landowners, ranging from the laws of nuisance¹²⁹ to pollution control laws,¹³⁰ and licensing requirements of many sorts, from houses in multiple occupation¹³¹ and caravan sites¹³² to public houses¹³³ and sex shops,¹³⁴ quite apart from the various powers of entry for statutory bodies¹³⁵ and utility providers¹³⁶ and ultimately wide powers of compulsory purchase.¹³⁷ When these are viewed alongside the limitations on development and on excluding public access, the question arises of whether it is time to rethink a paradigm

(n 118). Underlying conceptions of property are also coming under scrutiny in other contexts, for example H Howe, 'Copyright Limitations and the Stewardship Model of Property' 2011 *Intellectual Property Quarterly* 183. All of these offer thorough references to the wide literature on this topic.

125. This is commonly referred to as the 'nationalization of development rights' and in conference discussions the view has been expressed from the floor that the overall impact of public intervention in the provision of ecosystem services will in effect amount to nationalization of this as well, further eroding the rights of the landowner.

126. *Countryside and Rights of Way Act 2000* pt 1.

127. *Marine and Coastal Access Act 2009* pt 9.

128. *Land Reform (Scotland) Act 2003* pt 1.

129. Both at common law and under statutory provisions, for example *Watt v Jamieson* 1954 SC 56 and *Environmental Protection Act 1990*, pt 3. This and the following examples all relate to the law in Scotland.

130. For example, the *Pollution Prevention and Control (Scotland) Regulations 2012*, SSI 2012/360.

131. *Housing (Scotland) Act 2006*, pt 5.

132. *Caravan Sites and Control of Development Act 1960*.

133. *Licensing (Scotland) Act 2005*.

134. *Civic Government (Scotland) Act 1982*, s 45 and sch 2.

135. For example, *Flood Risk Management (Scotland) Act 2009*, s 79. In 2012, work by the UK government identified 1,340 statutory powers of entry for government departments alone; see <<https://www.gov.uk/government/publications/protection-of-freedoms-act-2012-documents-powers-of-entry>> accessed 18 January, 2013.

136. For example, *Water (Scotland) Act 1980*, s 76M.

137. For example, *Nature Conservation (Scotland) Act 2004*, s 39.

based on the owners' complete control over their property.¹³⁸ Has the stage been reached where the qualifications are so extensive that it is no longer helpful to take as a starting position the traditional assertion that ownership carries with it the freedom to deal with and use the land as one wishes and to exclude others? Instead a more limited definition of ownership might be appropriate, recognizing the many ways in which the landowners' freedom is constrained for the public good. Even if there were agreement on the weakness of the traditional model, consensus on the definition of a new paradigm is likely to be harder to reach and seems unlikely in the immediate future. Nevertheless, moving away from a starting point that emphasizes the powers rather than the responsibilities of the owner of land may play a part in redefining the legal frameworks sharing our relationship with nature. Such arguments over the fundamental nature and extent of property rights provide further elements to be taken into consideration in shaping new legal frameworks.

6 RIGHTS FOR NATURE

A further approach is not to add to or restrict the existing rights held by people, but to create new rights for nature which can compete against them on level terms. In this way the legal rights held by individuals are not the only 'trump cards'¹³⁹ in any conflict but are matched by other rights that must be given equal weight in resolving courses of action. This goes far beyond simply procedural questions of whether nature should be represented in decision-making and conflict,¹⁴⁰ and seeks to confer substantive rights on the natural world. This is not just a matter of academic theorization but is becoming reality in some contexts, but again there are questions of what sort of rights these should be and who exactly should hold them.¹⁴¹ Although such provisions can be seen as 'chang[ing] the status of ecosystems from being regarded as *property* under the law to being *rights-bearing* entities',¹⁴² what this will mean in practice is still evolving.¹⁴³

At the international level, the recent Universal Declaration of Rights of Mother Earth identifies a range of rights inherent to Mother Earth and 'all beings of which she is composed', and these include ecosystems, natural communities, species and all other natural entities that exist as part of Mother Earth.¹⁴⁴ Nationally there are

138. D McKenzie-Skene, J Rowan-Robinson, R Paisley and D Cusine, 'Stewardship: From Rhetoric to Reality' (1999) 3 Edin LR 151.

139. Dworkin's statement that 'Individual rights are political trumps held by individuals' creates a challenge for other interests which is thus met by the recognition of other entitlements of equivalent power: R Dworkin, *Taking Rights Seriously* (Duckworth, London 1977) xi.

140. As famously captured in Christopher Stone's question: Should trees have standing? See the special issue of this journal which reprints his 1972 article and contains further thoughts by him and distinguished commentators; (2012) 3 JHRE 1–120.

141. P Burdon, 'Earth Rights: The Theory' (2011) 1 IUCNAEL e-Journal 1–12.

142. M Margil, 'Building an International Movement for Rights of Nature' in M Maloney and P Burdon (eds), *Wild Law in Practice* (Routledge, Abingdon 2014) 151.

143. M Maloney and P Burdon (eds), *Wild Law in Practice* (Routledge, Abingdon 2014).

144. Universal Declaration of Rights of Mother Earth, adopted at World People's Conference on Climate Change and the Rights of Mother Earth held in Cochabamba, Bolivia on 22 April 2010, at <<http://therightsofnature.org/universal-declaration/>> accessed 17 January 2014, esp art 2. See also the Preamble to the Earth Charter, which also calls for 'respect for nature': The Earth Charter, at <<http://www.earthcharterinaction.org/content/pages/Read-the-Charter.html>> accessed 17 January 2014.

the remarkable provisions of the Constitution of Ecuador adopted in 2008,¹⁴⁵ which recognizes substantive rights for nature:

Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes.¹⁴⁶

Nature has the right to be restored. ... In those cases of severe or permanent environmental impact, including those caused by the exploitation of nonrenewable natural resources, the State shall establish the most effective mechanisms to achieve the restoration and shall adopt adequate measures to eliminate or mitigate harmful environmental consequences.¹⁴⁷

The State shall apply preventive and restrictive measures on activities that might lead to the extinction of species, the destruction of ecosystems and the permanent alteration of natural cycles.¹⁴⁸

Stating such rights (and the duty on the state to protect them) and ensuring their complete and effective protection in practice are different things, especially when one considers the plethora of economic and social factors that lie behind infringements, to say nothing of potential conflict with the other rights also given recognition.¹⁴⁹ Moreover, as the final provision quoted above shows, giving effect to the rights will depend on interventions by the state, which has many conflicting demands on its attention. Nevertheless, such provisions are making sure that the language of rights is not used to give enhanced legal status exclusively to human priorities. Granting rights to nature opens new challenges for how we picture and engage with rights, but this is nothing new as the history of human rights has been one of redefinition and expansion, beyond the core individual civil and political rights, to embrace social and economic rights and collective rights.¹⁵⁰

Other developments can be used to show nature being given rights in a much more functional way. The leading example is in relation to water,¹⁵¹ where in various

145. Constitution of the Republic of Ecuador; translation taken from the Political Database of the Americas, at <<http://pdba.georgetown.edu/Constitutions/Ecuador/english08.html>> accessed 10 December 2013.

146. *Ibid* art 71.

147. *Ibid* art 72.

148. *Ibid* art 73.

149. Other constitutional rights in Ecuador include the rights to 'safe and permanent access to healthy, sufficient and nutritional food, preferably produced locally' (art 13), to 'adequate and decent housing' (art 30) and 'to have goods and services of the highest quality and to choose them freely' (art 52), all of which will make demands on the natural environment.

150. C Redgwell, 'Life, The Universe and Everything: A Critique of Anthropocentric Rights' in A Boyle and M Anderson (eds), *Human Rights Approaches to Environmental Protection* (Oxford University Press, Oxford 1996) esp 79–81. Cf. J Bentham: 'The day may come, when the rest of the animal creation may acquire those rights which never could have been withholden from them but by the hand of tyranny. The French have already discovered that the blackness of the skin is no reason why a human being should be abandoned without redress to the caprice of a tormentor ... It may come one day to be recognized, that the number of the legs, the villosity of the skin, or the termination of the *os sacrum*, are reasons equally insufficient for abandoning a sensitive being to the same fate ... the question is not, Can they reason? nor, Can they talk? but, Can they suffer?', J Bentham, *An Introduction to the Principles of Morals and Legislation* (1789) chap XVII, note 122.

151. We are grateful to Erin O'Donnell, University of Melbourne Law School for assistance on this point.

countries there is an express recognition that in the sharing of water resources nature needs to be included as one of those entitled to participate, and indeed potentially as having priority in some circumstances.¹⁵² Thus in South Africa a fundamental feature of water resource management is protection of the Reserve, which is water required both 'to satisfy basic human needs' and 'to protect aquatic ecosystems in order to secure ecologically sustainable development and use of the relevant water resource'.¹⁵³ The linking of ecosystems with the use of the water resource shows that there is not a wholly ecocentric view being taken, but the crucial point is that in determining allocations it is not just human needs and rights that are recognized. Nature does not simply get what is left over after human demands are satisfied, but is playing a full part in the competition over the scarce resource. Nature's right to water is recognized alongside the human right to water,¹⁵⁴ and both are given priority over individually held property rights.

Similarly in Australia, the needs of the environment feature heavily in water allocation processes, being recognized as having claims on the resource not only equal to but having priority over those of other water users.¹⁵⁵ Again, nature is being seen not as something outwith the resource management process but as an integral part of it. One way of achieving this is the appointment of an Environmental Water Holder, as in the State of Victoria,¹⁵⁶ whose role is to hold and manage water entitlements to maintain and enhance the environmental water reserve.¹⁵⁷ Thus within a legislative and planning framework which recognizes nature's right to a share of the water to be allocated, there is an 'agent' who can engage in the water management structures (which involve strong elements of market-based methods) as a 'player in the game', preventing the interests of the natural environment being overlooked.

Such a role for the Environmental Water Holder has resonance with another development that endeavours to take account of nature's needs, the resurgence of interest in the public trust doctrine in relation to natural resources.¹⁵⁸ This recognizes the private

152. L Godden, 'Water Law Reform in Australia and South Africa: Sustainability, Efficiency and Social Justice' (2005) 17 JEL181; LJ Kotzé and R Bates, 'Similar but Different: Comparative Perspectives on Access to Water in Australia and South Africa' (2011–12) 15 U Denv Water L Rev 221.

153. National Water Act (No 36 of 1998), s 1, 16–18. There is tension between the constitutional rights to a healthy environment and to water (arts 24 and 27 of the Constitution of the Republic of South Africa, 1996) and over the status of the statutory, but not constitutional, provision for the Reserve; LJ Kotzé, 'Phiri, the Plight of the Poor and the Perils of Climate Change: Time to Rethink Environmental and Socio-economic Rights in South Africa?' (2010) 1 JHRE 135.

154. The existence, nature and extent of the right to water has itself been the subject of much debate; see SMA Salman and S McInerney-Lankford, *The Human Right to Water* (World Bank, Washington DC 2004); C de Albuquerque, 'Water and Sanitation are Human Rights: Why Does It Matter?' in L Boisson de Chazournes, C Leb and M Tignino, *International Law and Freshwater: The Multiple Challenges* (Edward Elgar Publishing, Cheltenham 2013).

155. Godden (n 152) 191–2; Water Act 2007 (Cwth).

156. Water Amendment (VEWH) Act 2010 (Vic) amending Water Act 1989 (Vic).

157. E O'Donnell, 'Institutional Reform in Environmental Water Management: The New Victorian Environmental Water Holder' (2011) 22 Water Law 73.

158. This is, of course, not a wholly new development, for example J Sax, 'The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention' (1970) 68 Mich L Rev 471. Interest in the doctrine is arising in many contexts, for example M Turnipseed, RD Sagarin, P Barnes, MC Blumm, P Parenteau and PH Sand, 'Reinvigorating the Public Trust Doctrine: Expert Opinion on the Potential of a Public Trust Mandate in U.S. and International

rights of landowners but balances them against the state's entitlements, conceived as straddling public and private law, as guardian of the natural environment.¹⁵⁹ Nature is thus protected not by being itself endowed with rights that can compete directly with the private rights of others, but as the beneficiary of the state's duties towards the natural environment on behalf of the community as a whole.¹⁶⁰ The issue is complicated by the fact that any fiduciary responsibilities may be accompanied by an assertion of more direct property rights. For example, most states in the USA claim ownership of wildlife for the benefit of the public¹⁶¹ and there is growing debate,¹⁶² and even litigation,¹⁶³ based on making this public trust a reality in decisions affecting wildlife. The exact extent and consequences of this trust may be open to argument in specific circumstances,¹⁶⁴ but the overall effect has been summarized as requiring the state to act as follows:

Based on existing public trust doctrine case law, the state must: (1) consider the potential adverse impacts of any proposed activity over which it has administrative authority; (2) allow only those activities that do not substantially impair the state's wildlife resources; (3) continually monitor the impacts of an approved activity on the wildlife to ensure preservation of the corpus of the trust; and (4) bring suit to enjoin harmful activities and/or to recover for damages to its wildlife under the *parens patriae* doctrine.¹⁶⁵

In terms of wildlife conservation, therefore, there is a champion who is responsible for safeguarding the interests of nature, which (depending how far one wants to stretch the trust-based language) can be seen as the beneficiary of a trust with the rights

Environmental Law' (2010) 52 *Environment: Science and Policy for Sustainable Development* 6; RD Sagarin and M Turnipseed, 'The Public Trust Doctrine: Where Ecology Meets Natural Resources Management' (2012) 37 *Annual Review of Environment and Resources* 473.

159. K Bosselmann, *The Principle of Sustainability: Transforming Law and Governance* (Ashgate, Aldershot 2008) chap 5.

160. Developments in water law can be seen in this light as well: Godden (n 152) 198; L Feris, 'The Public Trust Doctrine and Liability for Historic Water Pollution in South Africa' (2012) 8 *Law, Environment and Development Journal* 1; G Pienaar and E van der Schyff, 'The Reform of Water Rights in South Africa' (2007) 3(2) *Law, Environment and Development Journal* 179, 183–4.

161. O Houck, 'Why Do We Protect Endangered Species, and What Does That Say about Whether Restrictions on Private Property to Protect Them Constitute Takings' (1994–95) 80 *Iowa L Rev* 297.

162. M Wood, *Nature's Trust: Environmental Law for a New Ecological Age* (Cambridge University Press, Cambridge 2013); R Watson, 'Public Wildlife on Private Land: Unifying the Split Estate to Enhance Trust Resources' (2012–13) 23 *Duke Env'tl L & Pol'y F* 291; E Fitzgerald, 'The Alaskan Wolf War: The Public Trust Doctrine Missing in Action' (2009) 15 *Animal Law* 193; M Wood, 'Protecting the Wildlife Trust: A Reinterpretation of Section 7 of the Endangered Species Act' (2004) 34 *Environmental Law* 605.

163. A current dispute is the litigation in Montana arguing that a plan to allow Ted Turner to keep the offspring of bison sheltered on his ranch amounts to an unlawful transfer of state property; *Western Watersheds Project, Gallatin Wildlife Association, Buffalo Field Campaign & Yellowstone Buffalo Foundation v State of Montana & Montana Department of Fish, Wildlife & Parks*, lodged in Montana District Court in March 2013.

164. D Musiker, T France and L Hallenbeck, 'The Public Trust and *Parens Patriae* Doctrines: Protecting Wildlife in Uncertain Political Times' (1995) 16 *Pub Land L Rev* 87 1995; P Redmond, 'The Public Trust in Wildlife: Two Steps Forward, Two Steps Back' (2009) 49 *Nat Resources J* 249.

165. Musiker, France and Hallenbeck (n 164) 115.

that that status entails. The legal position of nature is thus resting on its position as the holder of beneficial interests in property formally held by the state. In truth, though, given that the effect of this trust depends on the actions of the relevant public bodies involved,¹⁶⁶ this approach really takes us back to the starting point of reliance on the state as the guardian of nature, but this time acting on the basis of its entitlements as trustee or property holder, rooted in private law, not the regulatory power in public law. The entanglement between ideas becomes even more intense if one starts to interrogate the state's duties as a holder of property from a stewardship perspective and its powers in relation to the holders of other rights under constitutional and property law.

7 CONCLUSION

In any modern Western legal system, recognizing the rights of individuals is essential. Yet the focus on the legal rights enjoyed by individuals tends to create a misalignment with the ecosystem approach recognized as being at the core of better care for biodiversity. Only rarely will the geographical limits and content of the rights held by a single party coincide with what is needed to care for an ecosystem in a comprehensive manner. Neither individuals acting alone nor a market is likely to achieve the level of coherence and coordination required to secure effective conservation.¹⁶⁷ Individual private rights alone, therefore, are not likely to provide the key to unlocking more effective conservation, and indeed over-emphasis on private rights at the expense of general welfare may create hurdles for the development of new moves to further biodiversity.

There is scope for a wide range of legal mechanisms to be used, but all of these raise issues about the range of rights that are legally recognized, the nature of these rights and the interaction between public and private law.¹⁶⁸ As conservation is given increased priority, advances can be made along well-trodden regulatory paths or new approaches can be developed, based on payment and trading systems which entail the recognition of new rights. New life can be breathed into long-established concepts such as the public trust doctrine, or property rights can be redefined to ensure that ecological sustainability is taken into account. Some of the dilemmas over the extent of the state's lawful powers to interfere with rights in the public interest will simply be the working out in a specific context of well-known arguments, whereas to the extent that new rights are created, more novel questions must be faced.

A crucial point, though, is that we must ensure that none of the discussions take place in wholly separate compartments. The simple sketch-map drawn here shows some of the tensions that are emerging as the desire to strengthen conservation leads to measures to increase regulation, create new market-based mechanisms, redefine property or bestow rights on nature to enable it to compete in the 'rights arena'. In all of this it is not unknown for the excitement of developing new legal structures to lead to too blinkered a vision. The arguments put forward in favour of markets can fail to consider the exact legal status of the rights that are being traded and the

166. 'Asking the sovereign state to accept a fundamental fiduciary duty is a bit like asking the fox to look after the chicken', Bosselmann (n 159) 173.

167. CT Reid, 'Between Priceless and Worthless: Challenges in Using Market Mechanisms for Conserving Biodiversity' (n 10) 226–8.

168. 'Property rights in relation to land-use are fundamentally shaped by public law': Scotford and Walsh (n 19) 1044.

consequences of that status beyond the confines of the market when rights interact with constitutional protections. If property rights are to be a keystone of any legal mechanisms, then questions arise as to when these rights can be restricted or qualified, and whether concepts of stewardship can or should impose restrictions on their exercise. Within human rights discussions, the environmental context demands that the interests of the wider community, human and non-human, must also be taken into consideration. It is too easy for those concentrating on one aspect to ignore the others, to the detriment of the cohesion of the law.

The language of rights can provide a framework for grappling with the difficult choices we face between and within the interests of individuals, communities, generations and the natural world. But it can also lead to misunderstandings and to dialogue at cross-purposes. As we endeavour to design new ways of furthering conservation, we must not be misled by false friends when we see reference to rights, but be sure that everyone is clear as to the nature, extent and status of the rights in question. Just as ecologists and lawyers must learn to communicate to be able to develop effective conservation, so must lawyers ensure that among themselves, they are genuinely speaking the same language.